## SEQUENCE LISTING

- <110> Mirkin, Chad A.
  Letsinger, Robert L.
  Mucic, Robert C.
  Storhoff, James J.
  Elghanian, Robert
  Taton, Thomas A.
- <120> NANOPARTICLES HAVING OLIGONUCLEOTIDES ATTACHED THERETO AND USES THEREFOR
- <130> 4149-1-1-1
- <140> Not Yet Assigned
- <141> 2000-06-26
- <150> 60/031,809
- <151> 1996-07-29
- <150> PCT/US97/12783
- <151> 1997-07-21
- <150> 09/240,755
- <151> 1999-01-29
- <150> 09/344,667
- <151> 1999-06-25
- <150> 60/200,161
- <151> 2000-04-26
- <160> 64
- <170> PatentIn Ver. 2.1
- <210> 1
- <211> 20
- <212> DNA
- <213> Artificial Sequence
- <220>
- <223> Description of Artificial Sequence:random synthetic sequence
- <400> 1
- aaacgactct agcgcgtata

Ĩ	7
į	
į	
=	į
Ē	ħ
Harrie	Ų
÷	ij
1	Ō
Œ	
=:	
_	å
_	
aulter duch	
adta tadt adta	]
adta tadt adta	74 11
aulter And adla Rear Scall	74 11

<pre>&lt;210&gt; 2 &lt;211&gt; 20 &lt;212&gt; DNA &lt;213&gt; Artificial Sequence  &lt;220&gt; &lt;223&gt; Description of Artificial Sequence:random</pre>	20
<212> DNA <213> Artificial Sequence  <220> <223> Description of Artificial Sequence:random synthetic sequence  <400> 2	<b>:0</b>
<220> <223> Description of Artificial Sequence:random synthetic sequence <400> 2	<b>!0</b>
<220> <223> Description of Artificial Sequence:random synthetic sequence <400> 2	<b>!0</b>
<223> Description of Artificial Sequence:random synthetic sequence <400> 2	<b>: 0</b>
<223> Description of Artificial Sequence:random synthetic sequence <400> 2	<b>:</b> 0
synthetic sequence	:0
<400> 2	:0
	10
	10
atggcaacta tacgcgctag	
	. •
<210> 3	
<211> 16	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Description of Artificial Sequence:random	
synthetic sequence	
· · · · · · · · · · · · · · · · · · ·	
<400> 3	
ccttgagatt tccctc	L6
<210> 4	
<211> 16	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Description of Artificial Sequence:random	
arm that 1 a camiana	
synthetic sequence	
·	
<400> 4	16
<400> 4	L6
<400> 4	L6
<400> 4 gagggaaatc tcaagg	L6
<400> 4 gagggaaatc tcaagg <210> 5	L <b>6</b>
<400> 4 gagggaaatc tcaagg	L6
<400> 4 gagggaaatc tcaagg  <210> 5 <211> 18 <212> DNA	L <b>6</b>
<400> 4 gagggaaatc tcaagg  <210> 5 <211> 18	16
<400> 4 gagggaaatc tcaagg  <210> 5 <211> 18 <212> DNA	16
<400> 4 gagggaaatc tcaagg  <210> 5 <211> 18 <212> DNA <213> Artificial Sequence	L6

	<400>	5		
	aactt	gcgct aatggcga		18
	<210>			
	<211>			
	<212>			
	<213>	Artificial Sequence	•	
	<220>			
	<223>	Description of Artificial	Sequence: random	
		synthetic sequence	-	
	<400>			
	aagtt	geget ttaeggetaa tggega		26
	<210>	7		
	<211>	15		
_	<212>	DNA		
]	<213>	Artificial Sequence		
J				
79 F1	<220>		_	
; : : <b>i</b>	<223>	Description of Artificial	Sequence: random	
45 f. 6 f.		synthetic sequence		
Į.	<400>	7		
_		ttece tttte		15
å 7				
				•
U	<210>			
<b>_</b>	<211>			
i	<212>			
	<213>	Artificial Sequence		
	<220>			
	<223>	Description of Artificial	Sequence: random	
		synthetic sequence	-	
	<400>			4.5
	gaaaa	gggaa ggaga		15
	<210>			
	<211>	15		
	<212>			
	<213>	Artificial Sequence		

	<220>			
	<223>	Description of Artificial	Sequence: random	
		synthetic sequence		
	<400>	-		
	cttttc	ectt cctct	•	15
	<210>	10		•
	<211>	28		
	<212>	DNA		
	<213>	Artificial Sequence		
	<220>			
		Description of Artificial	Sequence:random	
		synthetic sequence		
		•		
	<400>	- •		
	aaacga	ctct agcgcgtata gttgccat		28
· 				
	<210>	11		
	<211>	28		
	<212> 1	ONA		
	<213>	Artificial Sequence		
	<220>			
		Description of Artificial	Sequence: random	
:		synthetic sequence		
:		-		
	<400>			
	atggca	acta tacgcgctag agtcgttt	•	28
	<210>	12		
	<211>	L5		
	<212> I			
	<213> 1	Artificial Sequence		
	<220>			
	<223> I	Description of Artificial	Sequence: random	
		synthetic sequence	-	
		- •		
	<400> 1	<del></del>		
	cctatcg	gacc atgct	:	15

<210>	13	
<211>	30	
<212>	DNA	
<213>	Artificial Sequence	
	•	
<220>		
	Description of Artificial Sequence:random	
\ <b></b>	synthetic sequence	
	by noncore bodgemen	
<400>	13	
	ggtcg ataggaaacg actctagcgc	30
ageac	39003 202322203 2000023030	
<210>		
<211>		
<211>		
	•	
<213>	Artificial Sequence	
<220>		
<223>	Description of Artificial Sequence:random	
	synthetic sequence	
400	••	
<400>		
gcgct	agagt cgttt	15
<210>		
<211>		
<212>		
<213>	Artificial Sequence	
<220>		
<223>	Description of Artificial Sequence:random	
	synthetic sequence	
<400>		
agcate	gtcg ataggatggc aactatacgc	30
	·	
<210>	<del></del>	
<211>		
<212>		
<213>	Artificial Sequence	
<220>		
<223>	Description of Artificial Sequence:random	
	synthetic sequence	

	<400> 16	
	gtcgatagga aacgactcta gcgc	24
	<210> 17	
	<211> 30	
	<212> DNA	
	<213> Artificial Sequence	
	<220>	
	<223> Description of Artificial Sequence: random	
	synthetic sequence	
	<400> 17	
	agcatggttg ataggaaacg actctagcgc	30
	·	
	<210> 18	
	<211> 30	
<b>27.</b>	<212> DNA	
j D	<213> Artificial Sequence	
1	<220>	
tý Fi	<223> Description of Artificial Sequence: random	
date dan den mel dan badi badi badi	synthetic sequence	
d A	<400> 18	
<del>tef</del>	agcatgtttg ataggaaacg actctagcgc	30
<u> </u>		
- -	<210> 19	
	<211> 12	
	<212> DNA	
Á	<213> Artificial Sequence	
	<220>	
	<223> Description of Artificial Sequence: random	
	synthetic sequence	
	<400> 19	
	tctcaactcg ta	12
	<210> 20	
	<211> 12	
	<212> DNA	
	<213> Artificial Sequence	

	<220>	<del>_</del>			
	<223>	Description of Artificial	Sequence: random	•	
		synthetic sequence			
	<400>				
	cgcat	tcagg at		;	12
	<210>	21			
	<211>				
	<212>				
		Artificial Sequence			
		•			
	<220>				
	<223>	Description of Artificial	Sequence: random	•	
		synthetic sequence			
	<400>	21			
	tacgas	gttga gagagtgccc acat		:	24
		••			
	<210><211>	<del></del>			
	<211><212>				
		Artificial Sequence			
	(213)	Attititial beduence			
	<220>		•		
	<223>	Description of Artificial	Sequence: random		
		synthetic sequence	_		
	<400>	22			
	tacgag	gttga gaateetgaa tgeg		2	24
	.050				
	<210><211>				
	<211>	<del></del>			
		Artificial Sequence			
	\ <b>21</b> 37	ALULALUA DOQUUNUG			
	<220>			. ••	
~	<223>	Description of Artificial	Sequence: random		
		synthetic sequence	_		
		<del>-</del> •			
	<400>	23			
	tacgag	ittga gaateetgaa tget		2	24
	<210>	24			

<211>	24	
<212>	DNA	
	Artificial Sequence	
1220		
<220>		
	Description of Artificial Sequence:random	
\2257	synthetic sequence	
<400>	24	
tacgac	yttga gactcctgaa tgcg	24
<210>	<b>25</b> ·	
<211>	23	
<212>		
	Artificial Sequence	
/443/	ur fritzerer podecere	
<220>		
	Description of Artificial Sequence:random	
(223)	synthetic sequence	
	synchetic sequence	
<400>	25	
		23
cacgag	lega gaaceetgaa ege	2,5
<210>	26	
<210>		
<211>	25	
<211> <212>	25 DNA	
<211> <212>	25	
<211> <212> <213>	25 DNA	
<211><212><212><213>	25 DNA Artificial Sequence	
<211><212><212><213>	25 DNA Artificial Sequence  Description of Artificial Sequence:random	
<211><212><212><213>	25 DNA Artificial Sequence	
<211><212><213><223>	25 DNA Artificial Sequence  Description of Artificial Sequence:random synthetic sequence	
<211><212><213><223><400>	25 DNA Artificial Sequence  Description of Artificial Sequence:random synthetic sequence	25
<211><212><213><223><400>	25 DNA Artificial Sequence  Description of Artificial Sequence:random synthetic sequence	25
<211><212><213><223><400>	25 DNA Artificial Sequence  Description of Artificial Sequence:random synthetic sequence	25
<211> <212> <213> <223> <400> tacgag	DNA Artificial Sequence  Description of Artificial Sequence:random synthetic sequence  26 ettga gacatcctga atgcg	25
<211> <212> <213> <220> <223> <400> tacgag	25 DNA Artificial Sequence  Description of Artificial Sequence:random synthetic sequence  26 ttga gacatcctga atgcg	25
<211> <212> <213> <220> <223> <400> tacgag	DNA Artificial Sequence  Description of Artificial Sequence:random synthetic sequence  26 ttga gacatcctga atgcg	25
<211> <212> <213> <220> <223> <400> tacgag <211> <211> <212>	DNA Artificial Sequence  Description of Artificial Sequence:random synthetic sequence  26 ttga gacatcctga atgcg  27 24 DNA	25
<211> <212> <213> <220> <223> <400> tacgag <211> <211> <212>	DNA Artificial Sequence  Description of Artificial Sequence:random synthetic sequence  26 ttga gacatcctga atgcg	25
<211> <212> <213> <220> <223> <400> tacgag <211> <211> <212> <213>	DNA Artificial Sequence  Description of Artificial Sequence:random synthetic sequence  26 ttga gacatcctga atgcg  27 24 DNA	25
<211> <212> <213> <220> <223> <400> tacgag <211> <211> <212> <213>	DNA Artificial Sequence  Description of Artificial Sequence:random synthetic sequence  26 ttga gacatcctga atgcg  27 24 DNA Artificial Sequence	25
<211> <212> <213> <220> <223> <400> tacgag <211> <212> <213> <2212> <213>	Description of Artificial Sequence:random synthetic sequence  26 ttga gacatcctga atgcg  27 24 DNA Artificial Sequence  Description of Artificial Sequence:random	25
<211> <212> <213> <220> <223> <400> tacgag <211> <212> <213> <2212> <213>	DNA Artificial Sequence  Description of Artificial Sequence:random synthetic sequence  26 ttga gacatcctga atgcg  27 24 DNA Artificial Sequence	25
<211> <212> <213> <220> <223> <400> tacgag <211> <212> <213> <2212> <213>	DNA Artificial Sequence  Description of Artificial Sequence:random synthetic sequence  26 ttga gacatcctga atgcg  27 24 DNA Artificial Sequence  Description of Artificial Sequence:random synthetic sequence	25

12

48

24

<212> DNA

<220>

<213> Artificial Sequence

<210>	28
<211>	12
<212>	DNA
<213>	Artificial Sequence
<220>	
<223>	Description of Artificial Sequence:random
	synthetic sequence
<400>	
tagga	cttac gc
<210>	<del></del>
<211>	
<212>	
<213>	Artificial Sequence
-0.00	
<220>	Proposition of Subject of S. C.
<223>	Description of Artificial Sequence:random
	synthetic sequence
<400>	20
	gttga gaccgttaag acgaggcaat catgcaatcc tgaatgcg
cacga	googa gacegooaag acgaggeaat catgeaatee tgaatgeg
<210>	30
<211>	24
<212>	DNA
<213>	Artificial Sequence
<220>	
<223>	Description of Artificial Sequence:random
	synthetic sequence
<400>	30
tgcate	gattg cctcgtctta acgg
<210>	
<211>	72

## synthetic sequence <400> 31 tacgagttga gaccgttaag acgaggcaat catgcatata ttggacgctt tacggacaac 60 atcctgaatg cg <210> 32 <211> 48 <212> DNA <213> Artificial Sequence <220> <223> Description of Artificial Sequence:random synthetic sequence <400> 32 gttgtccgta aagcgtccaa tatatgcatg attgcctcgt cttaacgg 48 <210> 33 <211> 12 <212> DNA <213> Artificial Sequence <220> <223> Description of Artificial Sequence:random synthetic sequence <400> 33 12 tctcaactcg ta <210> 34 <211> 24 <212> DNA <213> Artificial Sequence <220> <223> Description of Artificial Sequence:random synthetic sequence <400> 34 24 tacgagttga gaatcctgaa tgcg

<223> Description of Artificial Sequence:random

<210> 35

<211> 12			
<212> DNA			
<213> Artificial Sequence			
<220>			
<223> Description of Artificial	Sequence:random		
synthetic sequence			
<400> 35			
cgcattcagg at			12
<210> 36			
<211> 141			
<212> DNA			
<213> anthrax			
(21) dittilax			
<400> 36	•		
ggcggatgag tcagtagtta aggaggctca	tagagaagta attaattcgt	caacagaggg	60
attattgtta aatattgata aggatataag			
attgaagata ctgaagggct t			14:
•			
<210> 37			
<211> 15			
<212> DNA			
<213> Artificial Sequence			
<220>			
<223> Description of Artificial S	Sequence:random		
synthetic sequence			
<400> 37			
			15
taacaataat ccctc			13
<210> 38			
<211> 15			
<212> DNA	·		
<213> Artificial Sequence			
<220>			
<223> Description of Artificial S	Sequence:random		
synthetic sequence			
<400> 38			
			15

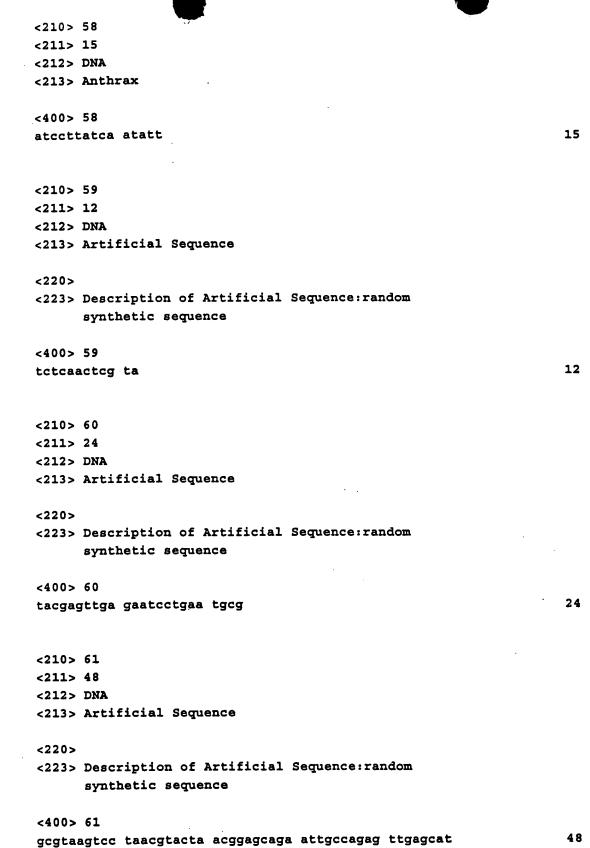
<210>	39	
<211>	30	
<212>	DNA	
	Artificial Sequence	
<220>		
<223>	Description of Artificial Sequence:random	
	synthetic sequence	
<400>	39	
tgagc	ctcct taactactga ctcatccgcc	30
<210>	40	
<211>	25	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Description of Artificial Sequence:random	
	synthetic sequence	
<400>	40	
tgttg	acgaa ttaattactt ctcta	25
	·	
<210>	- <del>-</del>	
<211>	·	
<212>		
<213>	Artificial Sequence	
.000		
<220>	m	
<223>	Description of Artificial Sequence: random	
	synthetic sequence	
<400>	41	
	cctg gataatattt ttcttat	27
cacaa	cool garaararr recour	~ ′
<210>	42	
<211>	- <del></del>	
<212>		
	Artificial Sequence	
<220>		
	Description of Artificial Sequence:random	
/	synthetic sequence	

<400>	> 42	
aagcc	ccttca gtatcttcaa tttctacaa	29
<210>	> 43	
<211>	> 22	
<212>	> DNA	
<213>	> Artificial Sequence	
<220>	•	
<223>	> Description of Artificial Sequence:random	
	synthetic sequence	
<400>		
tctca	aactcg taaaaaaaaa aa	22
<210>		
<211>		
<212>	· ·	
<b>&lt;213</b> >	> Artificial Sequence	
<220>		
	> Description of Artificial Sequence:random	
1000	synthetic sequence	
<400>	> 44	
tacgag	agttga gaatcctgaa tgcg	24
	·	
<210>	·	
<211>	<b>22</b>	
<212>		
<213>	Artificial Sequence	
<220>		
<223>	Description of Artificial Sequence:random	
	synthetic sequence	
<400>	. 45	
	aaaaa cgcattcagg at	22
200000	-cece obsessed as	- 4
<210>	× 46	
<211>		
<212>		
	Artificial Sequence	

<220>			
<223>	Description of Artificial synthetic sequence	Sequence: random	
<400>	46		
tctcas	actcg taaaaaaaaa aa	•	22
<210>	47		
<211>			
<212>	DNA		
<213>	Artificial Sequence		
<220>			
<223>	Description of Artificial synthetic sequence	Sequence: random	
<400>			22
88888	aaaa cgcattcagg at		22
<210>	48		
<211>	24		
<212>	DNA		
<213>	Artificial Sequence		
<220>			
<223>	Description of Artificial synthetic sequence	Sequence: random	
<400>	48		
tacgag	yttga gaatcetgaa tgeg		24
<210>	40		
<211>			
<212>			
	Artificial Sequence		
<220>			
<223>	Description of Artificial synthetic sequence	Sequence: random	
<400>	49		
ctactt	tagat ccgagtgccc acat		24

<210>	50	
<211>	12	
<212>	DNA	
<213>	Artificial Sequence	
	-	
<220>		
<223>	Description of Artificial Sequence: random	
	synthetic sequence	
<400>	50	
cgcat	tcagg at	12
<210>	<del></del>	
<211>		
<212>		
<213>	Artificial Sequence	
<220>		
	Description of Artificial Sequence:random	
(223)	synthetic sequence	
	symmetre seddence	
<400>	51	
88888	aaaaa aaaaaaaaaa cgcattcagg at	32
<210>	52	
<211>	32	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Description of Artificial Sequence: random	
	synthetic sequence	
<400>	F.0	
	52 tcagg atwwwwww wwwwwww ww	32
cycat	ccagg acmmanna mannanna am	J 2
<210>	53	
<211>	12	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Description of Artificial Sequence:random	
	synthetic sequence	

<400> 53.				
atcctgaatg cg			,	12
	•			
<210> 54				
<211> 12				
<212> DNA				
<213> Artificial S	Seguence			
(22)				
<220>				
<223> Description	of Artificial	Sequence: random		
synthetic se				
Symonosis of	4-0-00			
<400> 54				
atcctgaatg cg				12
accergaacy cy				
<210> 55				
<211> 20				
<212> DNA				
<213> Artificial S	Seguence			
(223) 111 022200				
<220>				
<223> Description	of Artificial	Sequence:random		
synthetic se		<b>4</b>		
<b>-2</b>	<b>3</b>			
<400> 55		·		
888888888 888888	1888			20
<210> 56				
<211> 27				
<212> DNA				
<213> Anthrax				
<400> 56				
ggattattgt taattat	tga taaggat			27
	•			
<210> 57				
<211> 12		•		
<212> DNA				
<213> Anthrax				
<400> 57				
taacaatnat cc				12



<210> 64



24

<210>	62		/ V	
<211>	72			
<212>	DNA			
<213>	Artificial Sequence			
<220>				
<223>	Description of Artificial S	equence:random		
	synthetic sequence			
<400>	62			
gcgtas	gtcc tacaacaggc atttcgcagg	ttatatacgt actaacg	gag cagaattgcc	60
agagtt	gage at			72
<210>	63			
<211>	24	·		
<212>	DNA			
<213>	Artificial Sequence			
<220>				
	manufacture of soulfields of a			

<223>	Description of Artificial Sequence:random synthetic sequence
<400>	63

<211>	48	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	Description of Artificial	Sequence: random
	synthetic sequence	

tgcatgattg cctcgtctta acgg

<400> 64 gttgtccgta aagcgtccaa tatatgcatg attgcctcgt cttaacgg 48